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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/595,984

02/15/2007

Johan Eker

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ERICSSON INC.  
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EXAMINER

WITZENBURG, BRUCE A

ART UNIT

PAPER NUMBER

2166

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/595,984	<b>Applicant(s)</b> EKER ET AL.	
	<b>Examiner</b> BRUCE A. WITZENBURG	<b>Art Unit</b> 2166	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 August 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 22-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. In view of applicant's amendments filed 02/09/2009, claims 22-42 remain pending in this application.

### Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 22-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crudele et al. (U.S. 2002/0099726) hereafter Crudele, in view of McCuller (U.S. 2007/0168708) hereafter McCuller.

Regarding claim 22, Crudele discloses a method of differentially updating an image of stored data in a mobile terminal from a first data version to an updated data version, the method comprising the steps of:

loading differential update instructions into a flash memory of the mobile terminal; (Abs;

¶0013; ¶0022; ¶0024 Note that while flash memory is not specifically used, it would

have been obvious to one of ordinary skill in the art at the time of the invention to use

flash memory when it provides the best, easiest, or perhaps only storage location as is

the case with most flash-based, embedded or mobile computing

Art Unit: 2166

generating an updated data version from the stored data and the loaded differential update instructions; (Abs; ¶¶0013 - ¶¶0015; ¶¶0022) and detecting whether the image of stored data in the flash memory of the mobile terminal includes one or more corrupted memory blocks having stored therein data that is inconsistent with the first data version; (Abs; ¶¶0025; ¶¶0032)

While Crudele does disclose that data integrity checks are important for delta updates, it does not specifically disclose repairing corrupted blocks

McCuller discloses repairing, when generating the updated data version, any such detected corrupted memory block; wherein the image of stored data in the flash memory is updated in-place such that data of the first data version is reused and reorganized to generate the updated data version. (The majority of the disclosure of McCuller with specific reference to Abs; ¶¶0006 - ¶¶0009) Because the disclosure of Crudele makes apparent the need to have uncorrupted data in the delta update system, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of McCuller with the teachings of Crudele in order to repair corrupted data during the update process in order to automate the update of all clients instead of only clients without corrupt data.

Regarding claim 23, claim 23 is rejected for substantially the same reason as claim 22 above. Note that McCuller generates differential information for updating corrupt data

Art Unit: 2166

blocks.

Regarding claim 24, claim 24 is rejected for substantially the same reason as claim 23 above.

Regarding claim 25, claim 25 is rejected for substantially the same reason as claim 23 above.

Regarding claim 26, claim 26 is rejected for substantially the same reason as claim 22 above.

Regarding claim 27, claim 27 is rejected for substantially the same reason as claim 22 above.

Regarding claim 28, while the cited references do not specifically disclose making use of a wireless communications link, such a link is well known and well appreciated in the art at the time of the invention and it would have been obvious to use a wireless link when access to a wired link is inconvenient or impossible.

Regarding claim 29, claim 29 is rejected for substantially the same reason as claim 23 above.

Art Unit: 2166

Regarding claim 30, McCuller discloses the step of detecting being performed by the mobile terminal and the detecting further comprises the step of transmitting information about the detected one or more corrupted memory blocks from the mobile terminal to the remote data processing system. (Abs; ¶0006 - ¶0009)

Regarding claim 31, claim 31 is rejected for substantially the same reason as claim 30 above.

Regarding claim 32, McCuller discloses detecting further comprising the steps of: calculating a number of checksums by the processor of the mobile terminal, wherein each checksum corresponds to a corresponding memory block of data stored in the flash memory of the mobile terminal; (¶0033 - ¶0036; ¶0038 - ¶0044) and comparing the calculated checksums with a number of reference checksums to identify any corrupted memory block of data. (¶0033 - ¶0036; ¶0038 - ¶0044)

Regarding claim 33, claim 33 is rejected for substantially the same reason as claim 32 above.

Regarding claim 34, Crudele does not specifically disclose the step of integrity protecting the reference checksums stored in the mobile terminal by a message authentication code, however Crudele does disclose using a message authentication code on all existing base data in the header of the software package file (Abs) Given the

Art Unit: 2166

above need to verify underlying information, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a message authentication code on the existing authentication data to verify header data has not been compromised also.

Regarding claim 35, claim 35 is rejected for substantially the same reason as claim 32 above.

Regarding claim 36, McCuller discloses the calculating step further comprising the step of calculating the checksums as a cryptographically strong one-way hash function of the corresponding memory block of the image of the stored data. (¶0033)

Regarding claim 37, claim 37 is rejected for substantially the same reason as claim 22 above.

Regarding claim 38, claim 38 is rejected for substantially the same reason as claim 22 above.

Regarding claim 39, claim 39 is rejected for substantially the same reason as claim 22 above.

Art Unit: 2166

Regarding claim 40, claim 40 is rejected for substantially the same reason as claim 22 above.

Regarding claim 41, claim 41 is rejected for substantially the same reason as claim 28 above.

Regarding claim 42, claim 42 is rejected for substantially the same reason as claim 22 above.

### **Response to Arguments**

Due to a bookkeeping oversight, the applicant inadvertently received a draft copy of the previous rejection in the stead of the completed copy. Despite this oversight, the arguments filed 08/12/2009, have been considered and are deemed to be persuasive. Specifically after a deeper reading of the previously cited references, there appears to be limited (if any) motivation for combining the previously cited references and thus a new grounds of rejection is provided above. The outstanding arguments are thus considered moot in light of the new grounds of rejection provided above.

### **Conclusion**

1. The additional prior art made of reference in this office action is as follows:
  - a. Crudele et al. (US 2002/0099726)
  - b. McCuller (US 2007/0168708)



Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRUCE A. WITZENBURG whose telephone number is (571)270-1908. The examiner can normally be reached on M-F 9:00 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bruce A Witzenburg/

Examiner, Art Unit 2166

/Etienne P LeRoux/

Primary Examiner, Art Unit 2161